

# MINERALS PROGRAM INSPECTION REPORT PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME:	MINE/PROSPECTING ID#:	MINERAL:	COUNTY:	
Cresson Project	M-1980-244	Gold	Teller	
INSPECTION TYPE:	INSPECTOR(S):	INSP. DATE:	INSP. TIME:	
Monitoring	Amy Eschberger	July 26, 2022	09:30	
OPERATOR:	<b>OPERATOR REPRESENTATIVE:</b>	TYPE OF OPERATION:		
Cripple Creek & Victor Gold Mining Company	Johnna Gonzalez, Brian Doering	112d-3 - Designated	Designated Mining Operation	

<b>REASON FOR INSPECTION:</b>		<b>BOND CALCULATION TYPE:</b>	BOND AMOUNT:
Normal I&E Program		None	\$209,491,188.00
DATE OF COMPLAINT:		POST INSP. CONTACTS:	JOINT INSP. AGENCY:
NA		None	None
WEATHER:	INSPE	CTOR'S SIGNATURE:	SIGNATURE DATE:
Clear		Clary Exchanger	August 26, 2022

The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.

**INSPECTION TOPIC:** Gen. Compliance With Mine Plan

**PROBLEM:** The operator is not following the monitoring plan approved in Technical Revision No. 127 (TR-127) for the Valley Leach Facility (VLF) Leak Detection Sumps (LDSs). Specifically, LDS-12 and LDS-13 (for VLF-1) are regularly infiltrated by meteoric water and sediment, and sometimes completely buried by sediment, resulting in these sumps not being sampled per TR-127 due to "mud" present in the sumps, or in these sumps not being accessible for inspection. This is a problem as the purpose of the LDSs is to allow for the detection of leaks in the VLF, and these sumps are not being regularly inspected and/or sampled per the approved monitoring plan. **CORRECTIVE ACTIONS:** By the corrective action due date, the operator shall provide a detailed plan for how LDS-12 and LDS-13 will be modified to prevent the infiltration of meteoric water and sediment into these sumps, and a schedule for completing the proposed modifications. This plan should also address how the sump inlet pipes will be inspected to ensure they are clear from any obstructions (e.g., mud, debris). **CORRECTIVE ACTION DUE DATE:** September 25, 2022

## **INSPECTION TOPIC:** Gen. Compliance With Mine Plan

**PROBLEM:** The operator is not following the monitoring plan approved in Technical Revision No. 27 (TR-127) for the Valley Leach Facility (VLF) Leak Detection Sumps (LDSs). Specifically, the operator has not placed visual markers in every LDS marking one foot above the bottom of the sump, so that it can be easily determined during the weekly inspection whether water in the sump has reached the level requiring sampling. Additionally, there are buckets still hanging from the sump inlet pipes in some of the LDSs, which was a practice utilized prior

to TR-127 approval to determine whether water observed in the sump came from meteoric infiltration or the sump inlet. Keeping the buckets in the sumps interferes with the monitoring plan approved in TR-127. **CORRECTIVE ACTIONS:** By the corrective action due date, the operator shall provide photographic evidence demonstrating that visual markers have been placed in accordance with TR-127 in the following eight LDSs (for VLF-1): LDS-1, LDS-2, LDS-4, LDS-5, LDS-6, LDS-7, LDS-12, and LDS-13. Additionally, photographic evidence must be provided to demonstrate the buckets have been removed from the following LDSs (for VLF-1): LDS-3, LDS-5, LDS-10, and LDS-11.

**CORRECTIVE ACTION DUE DATE:** October 25, 2022

# **OBSERVATIONS**

This was a normal monthly monitoring inspection of the Cresson Project (Permit No. M-1980-244) conducted by Amy Eschberger of the Division of Reclamation, Mining and Safety (Division). The operator was represented by Johnna Gonzalez and Brian Doering during the inspection. This is a 112d-3 Designated Mining Operation (DMO) permitted for 6,007 acres to mine and process gold ore. The site is located between the towns of Cripple Creek and Victor in Teller County. The approved post-mining land use is a combination of rangeland and wildlife habitat. **Photos 1-83** taken during the inspection are included with this report.

The primary focus of this inspection was the Valley Leach Facility (VLF) Leak Detection Sumps (LDSs) and underdrains. The Low Volume Solution Collection Systems (LVSCS) and High Volume Solution Collection Systems (HVSCS) were also inspected, with water level readings observed at the transducers as well as remotely from the office building at the VLF-2 Adsorption-Desorption Recovery Plant (ADR-2). Additionally, the Division observed construction progress of the VLF-2 Phase 3 located in the Schist Island mine area [approved in Amendment No. 13 (AM-13) on December 23, 2020].

Monitoring and reporting procedures for the HVSCS, LVSCS, LDSs, and underdrains were approved in Technical Revision No. 127 (TR-127) on October 7, 2021. Specific requirements from TR-127 are discussed in more detail below, under the applicable section.

### Valley Leach Facility - Leak Detection Sumps and Underdrains:

Per TR-127, all LDSs and underdrains are inspected on a weekly basis. If one foot or more of liquid is present in a LDS, the operator will obtain a sample of the liquid to test for Cyanide (WAD) concentration and pH. After sampling, the LDS will be pumped as dry as possible in order to determine if new liquid is present during the next weekly monitoring event. If the 30-day running average of CN<sub>WAD</sub> concentrations for an underdrain exceeds 1.0 mg/L and the 30-day running average pH value for the same underdrain exceeds 9.0, the operator must report this exceedance to the Division after confirmation of the initial monitoring results. If the 30-day running average of CN<sub>WAD</sub> concentrations for a LDS exceeds 0.5 mg/L and the 30-day running average pH value for the same LDS exceeds 9.0, the operator must report this exceedance to the Division after confirmation of the initial monitoring results. In TR-127, the operator committed to placing visual markers inside every LDS, marking one foot above the bottom of the sump, so that it could be easily determined during the weekly inspection whether water in the sump has reached the level requiring sampling.

The Division inspected all LDSs and underdrains for the VLF-1 and VLF-2, including a total of 15 LDSs and 4 underdrains for VLF-1, and 3 LDSs and one underdrain for VLF-2. The Division referred to the two maps approved in AM-13 for LDS and underdrain locations (see enclosed Figure 3.3.1 - VLF 1 – Underdrain, LDS, LVSCS & HVSCS Monitoring Locations and Figure 3.3.2 - VLF 2 – Underdrain, LDS, LVSCS & HVSCS Monitoring Locations and Figure 3.3.2 - VLF 2 – Underdrain, LDS, LVSCS & HVSCS Monitoring Locations). No flows were observed at the four underdrains inspected for VLF-1, including the primary underdrain located in Arequa Gulch, and the underdrains for Phases 4a, 4b, and 5. Additionally, no flows were observed at the underdrain inspected for VLF-2. It should be noted, the underdrain for VLF-1 Phase 4a is not labeled on the applicable AM-13 map. Therefore, the map needs to be modified to include this underdrain. Given this minor change, the Division will allow the map to be revised through an "Addendum to AM-13" submittal, which should be submitted to our office within 30 days of the signature date of this report.

Of the 15 LDSs inspected for VLF-1, 6 of them were dry, 7 of them had less than one foot of water (depths ranged from less than one inch to approximately 6 inches; LDS-2, LDS-3, LDS-4, LDS-5, LDS-6, LDS-11, and LDS-15), and 2 of them had one foot or more of water/mud (LDS-12 and LDS-13). The sumps with a foot or more of water/mud were not sampled during the inspection.

LDS-12 and LDS-13 are located in the crusher area, beneath a conveyor that transports crushed material to the Load Out Bin near the High Grade Mill. The tops of these sumps are flush with the surrounding ground surface, and the sumps are located at the base of a fairly steep slope. This causes the sumps to become buried at times from crusher fines and/or sediments washed downslope during storm events, which prevents the sumps from being sampled (until the sediment can be removed). Due to this design issue as well as the sump lids being rusted through in some areas, these sumps are regularly infiltrated by meteoric water and sediment. The operator indicated when the sumps contain mud a sample is not taken for analysis, even if the depth of the mud is at or above one foot. A vacuum truck is used to remove the mud from the sumps. However, according to the LDS monitoring data provided (described below), it appears the operator is not always able to remove the mud from the sumps before the next monitoring event. Therefore, the monitoring plan approved in TR-127 is not being consistently followed for LDS-12 and LDS-13, as these sumps are not always inspected on a weekly basis (if buried in sediment), and are not always sampled when water levels inside the sump are at or above one foot in depth (due to the water being mixed with mud). Additionally, the Division is concerned that the regular infiltration of mud into these sumps may have clogged the inlet pipes, so that water from the Leak Detection System would be unable to flow into the sumps, as intended. A problem is cited in this report (see page 1), requiring the operator to submit a detailed plan for how LDS-12 and LDS-13 will be modified to prevent the infiltration of meteoric water and sediment into these sumps, and a schedule for completing the proposed modifications. This plan should also address how the sump inlet pipes will be inspected to ensure they are clear from any obstructions (e.g., mud, debris).

All three of the LDSs inspected for VLF-2 were dry, and no issues were observed with these sumps.

In 10 of the 18 LDSs inspected, a visual indicator (i.e., red and white reflective tape) had been placed to mark one foot above the bottom of the sump, as approved in TR-127. However, the Division did not observe a visual indicator in 8 of the LDSs (for VLF-1), including LDS-1, LDS-2, LDS-4, LDS-5, LDS-6, LDS-7, LDS-12, and LDS-13. For LDS-12 and LDS-13, the visual indicator (if present) would have been obscured by the muddy water present in these sumps. The operator stated during the inspection that a visual indicator could not be placed in some of the sumps, and therefore, any water present in these sumps is physically measured during the weekly inspection. The reason for an indicator not being placed in some of the sumps was not clear, as it did not appear to be based on depth (some deeper sumps did have a visual indicator).

Additionally, the Division noticed that four of the sumps (for VLF-1), including LDS-3, LDS-5, LDS-10, and LDS-11, still had a bucket hanging from the inlet pipe. This practice was utilized prior to TR-127 approval, as a means for determining if the water observed in the sump came from the inlet or from meteoric infiltration. However, in TR-127, the operator committed to placing a visual indicator one foot above the bottom of each sump, and to collecting samples from the water if it is observed to be at or above the marker during the weekly inspection. Keeping the buckets in the sumps interferes with the monitoring and sampling plan approved in TR-127.

The lack of visual markers in some of the LDSs and the continued practice of hanging buckets from the sump inlets is not consistent with the monitoring and sampling plan approved in TR-127. <u>Therefore, a problem is cited in this report (see pages 1 and 2), requiring the operator to provide photographic evidence demonstrating that visual markers have been placed in all LDSs in accordance with TR-127, and that any buckets have been removed from the LDSs.</u>

Per TR-127, the operator will provide the Division with an LDS summary table every year for the weekly monitoring events, including the LDS Number, Inspection Date, Inspection Time, Sample Taken, Reason for No Sample, Volume Pumped, CN<sub>WAD</sub> concentration, and pH value. This report will be submitted at the end of

the first quarter (by March 31<sup>st</sup>) following the reporting year. The first LDS summary table (since TR-127 approval) was submitted to the Division on March 31, 2022. The Division reviewed the 2021 LDS summary report and has the following recommended revisions for future submittals:

- The Sample Comment section should be more consistent. Currently, various comments are provided for the situation in which no sample was taken, including "dry", "not required", "NA", "less than 1 ft", "insufficient to sample", "insufficient", "insufficient flow", and "bucket dry". A consistent comment should be used in this section for the situation in which the sump has some water, but not enough (1 foot) to require sampling, such as "less than 1 ft". [Also, the continued use of buckets hanging around the inlet pipes as a means for determining whether a sump should be sampled is no longer part of the approved monitoring plan for the sumps, and these buckets must be removed (as mentioned above). Accordingly, "bucket dry" should no longer be an explanation for not sampling.]
- The Sample Taken section is not filled out for multiple monitoring events. This section should be filled out for every monitoring event, to indicate whether or not a sample was taken.
- The Sample Comment section is not filled out for multiple monitoring events, including ones in which a sample was not taken. At a minimum, this section should be filled out for every monitoring event in which a sample was not taken, to provide a brief explanation such as "dry" or "less than 1 ft".
- The Sample Comment section includes "mud" and "buried" as explanations for why a sample was not taken during 9 monitoring events for LDS-12 and during 10 monitoring events for LDS-13 (from July to November 2021). As stated above, this is not an acceptable reason for not inspecting and/or sampling the LDSs. If one foot or more of muddy water is present inside the sump, per TR-127 this substance must be sampled and tested for CN<sub>WAD</sub> and pH. Otherwise, the operator has no way of knowing whether at least some of the liquid present in the sump is from a leak in the VLF. The fact that these sumps are regularly infiltrated by meteoric water and sediment indicates the sumps need to be modified, which is cited as a problem in the report (described in more detail above).
- A column should be added to the table to indicate whether water was pumped out of the sump after sampling. For example, the column header might read "Water removed?" with a simple "yes" or "no" comment.
- The data table provided should be re-formatted so that all columns of data for each LDS sampling event are included on one page. This may mean the data needs to be presented on a larger page size (e.g., 11 inches x 17 inches) in a landscape orientation. The current format in which columns are broken up over multiple pages for each row, makes it unnecessarily cumbersome for one to review all data available for a specific LDS sampling event.

Besides the problems identified above, no other issues were observed at the LDSs and underdrains inspected. However, the Division recommends the operator work to keep the area around each LDS free from vegetation, rocks, sediment, and any other material that might interfere with the operator's ability to properly seal the lid on the sump. Additionally, no objects (e.g., ropes, hoses) should be draped over the top of the LDS (beneath the lid), which keeps the lid from properly sealing. It should be noted, LDS-12 and LDS-13 are not the only LDSs that are installed somewhat flush with the surrounding ground surface. However, (based on the 2021 LDS summary report) these two sumps are the only ones not being sampled due to being buried or filled with mud. The Division recommends the operator work to modify any other sumps that are regularly infiltrated with meteoric water, whether it means replacing the lid and/or lifting the top of the sump higher above the ground surface.

# <u>Valley Leach Facility - High Volume Solution Collection Systems and Low Volume Solution Collection</u> <u>Systems:</u>

# HVSCS:

Generally, each Pregnant Solution Storage Area (PSSA) HVSCS is equipped with pressure transducers that display readings on a screen at the HVSCS facility. Pressure transducers are contained within vertical riser pipes and directly measure the pressure of the liquid column above the transducer. These fixtures are commonly referred to as "standpipe transducers" or "pond level wells". Pond level readings can now be obtained remotely from the ADR-2 control room. Pond levels in a PSSA are compared to the height of liquid that corresponds to 80% of the PSSA volume capacity. The reporting limits for the PSSA pond levels are as follows: 63.7 feet (VLF-1 Phase I), 49.4 feet (VLF-1 Phase II/III), 56.5 feet (VLF-1 Phase IV), 35.5 feet (VLF-1 Phase V), and 94.0 feet (VLF-2). Pumps in the HVSCS are switched on as necessary to manage pond levels.

VLF-1 Phase V does not include "pond level wells" consisting of pressure transducers in vertical riser pipes (as described above). The height of liquid in the VLF-1 Phase V PSSA is measured using pressure transducers on the pumps. Liquid levels in the VLF-1 Phase V PSSA are unlikely to exceed the liquid level reporting limit of 80% PSSA capacity, as this PSSA drains to a lower PSSA, and the crest of the "spillway" is positioned at a lower height than the height of liquid corresponding to 80% of the VLF-1 Phase V PSSA capacity.

The HVSCS for VLF-2 Phase 3 (currently under construction) will be equipped with one standpipe transducer (i.e., "pond level well") at a minimum. Additional details on this system will be submitted in a future revision.

Per TR-127, if the average of the water level readings in a PSSA exceeds 80% of the total capacity of the PSSA in a sustained manner for 24 hours, the operator must report this exceedance to the Division within 24 hours after confirmation of the initial monitoring results.

The Division inspected all HVSCS locations, including the four at VLF-1 (for Phases I, II/III, IV, and V) and the one at VLF-2. The Division compared the readings observed on the displays at each HVSCS facility with the remote readings observed at the ADR-2 office building. The HVSCS levels for each VLF were observed to be within normal operating levels (see enclosed **Attachment A**), and no discrepancies were found between the values reported at the HVSCS facility and the values reported at the remote location.

## LVSCS:

Each LVSCS is equipped with pressure transducers, transducer readout panels, and variable frequency drives (VFDs). These components are used in conjunction with pumps to control liquid levels in the LVSCS. Each transducer and VFD have an automatic high-level switch that turns the pump on when liquid levels reach a certain height (high-level threshold) in the LVSCS, and an automatic low-level switch that turns the pump off when liquid levels reach a specified height. These pumps operate to maintain a maximum head of 24 inches (same threshold for all LVSCS phases, unlike with the HVSCS). Liquid level readings for the LVSCS can be obtained from the transducers and also remotely from the ADR-2 control room. The operator obtains these readings a minimum of once per week, and compares them to the high-level threshold of 24 inches.

Per TR-127, if the transducer monitoring data in the LVSCS or the Leak Detection, Collection, and Recovery System for the External Storage Pond (LDCRS) exceed 24 inches in a sustained manner for 72 hours, the operator must report this exceedance to the Division after confirmation of the initial monitoring results.

The Division inspected all LVSCS locations, including the five at VLF-1 (for Phases I, II/III, IV, and V and the External Storage Pond) and the one at VLF-2. The Division compared the readings observed on the displays at each LVSCS facility with the remote readings observed at the ADR-2 office building. The LVSCS levels for each VLF were observed to be within normal operating levels (see enclosed **Attachment A**), and no discrepancies were found between the values reported at the LVSCS facility and the values reported at the remote location. However, LVSCS readings could not be obtained for Phase I, Phase II/III, or the External Storage Pond (all for VLF-1). According to the operator, a recent lightning strike had knocked out the electrical system at these locations, causing the displays to malfunction. The operator indicated an emergency work order had been submitted to get the displays back online as soon as possible. Despite this issue with the displays, the Division was able to verify (in the control shed) that the pumps for these phases were still functioning.

### Valley Leach Facility – VLF-2 Phase 3 Construction:

The Division observed the VLF-2 Phase 3 construction area from an overlook located to the east of this area. The operation was in the initial stages of placing the liner on top of the completed soil liner fill layer. The operator did not provide an anticipated date for completing the liner placement. However, once the project is completed, the operator will submit a Technical Revision with the record of construction/CQA report for VLF-2 Phase 3.

Mining activities were occurring in the area directly north/northeast of the VLF-2 Phase 3, in the portion of the Schist Island mine that is not part of the backfill area for VLF-2 Phase 3.

This concludes the report.

Any questions or comments regarding this inspection report should be forwarded to Amy Eschberger at the Colorado Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, via telephone at 303-866-3567, ext. 8129, or via email at <u>amy.eschberger@state.co.us</u>.

### **PHOTOGRAPHS**



Photo 1. View looking north at VLF-1 LDS-9.



**Photo 2.** View looking inside VLF-1 LDS-9, showing sump dry. Note visual indicator (red and white tape; indicated) placed 1 foot above bottom of sump.



**Photo 3.** View looking northeast at VLF-1 Phase 4A underdrain (indicated; not shown on AM-13 map), showing this area dry.



**Photo 4.** View looking west at VLF-1 Phase 5 underdrain (indicated), showing this area dry.



Photo 5. View looking southeast at VLF-1 LDS-1.



**Photo 6.** View looking inside VLF-1 LDS-1, showing sump dry. No visual indicator was observed in this sump.



Photo 7. View looking west at area of VLF-1 Arequa pumpback system display.



**Photo 8.** View of display for VLF-1 Arequa pumpback system, showing a pump rate of 3 gallons per minute.



**Photo 9.** View looking southwest across VLF-1 External Storage Pond (ESP) LVSCS. Pond level was reported at 14.3% of capacity during inspection.



**Photo 10.** View looking southeast at shed located at eastern edge of VLF-1 ESP LVSCS in which pump readings can be obtained.



**Photo 11.** View of displays inside shed at VLF-1 ESP LVSCS, which were not functional at the time of the inspection.



**Photo 12.** View of displays inside shed at VLF-1 ESP LVSCS, showing pump #1 operable per manual test (despite issue with displays).



**Photo 13.** View of displays inside shed at VLF-1 ESP LVSCS, showing pump #2 operable per manual test (despite issue with displays).



**Photo 14.** View looking northeast at VLF-1 Phase 1 LVSCS shed in which readings can be obtained.



**Photo 15.** View of displays inside VLF-1 Phase 1 LVSCS shed, which were not functional at the time of the inspection.



Photo 16. View looking west at VLF-1 LDS-2.



**Photo 17.** View looking inside VLF-1 LDS-2, showing water present in sump (depth estimated at ~5 inches based on 4 inch inlet pipe). No visual indicator was observed in this sump.



**Photo 18.** View looking east at VLF-1 underdrain shed (circled) located underneath Hwy 67 bridge.



Photo 19. View inside VLF-1 underdrain shed.



**Photo 20.** View inside VLF-1 underdrain shed, showing no flows from underdrain pipe #1 during inspection.



**Photo 21.** View inside VLF-1 underdrain shed, showing no flows from underdrain pipe #2 during inspection.



**Photo 22.** View of discharge pipes exiting VLF-1 underdrain shed into Arequa Gulch.



**Photo 23.** View looking southwest across one of series of basins constructed downgradient of VLF-1 underdrain shed.



**Photo 24.** View looking east at Arequa pumpback wells CRMW-3A, 3B (far right) and 3C (far left), located approx. 400 feet downgradient from VLF-1 underdrain shed.



**Photo 25.** View looking south at discharge monitoring station AG 1.5 (weir in drainage), located approx. 650 feet downgradient from VLF-1 underdrain shed. No flows were observed during the inspection.



**Photo 26.** View looking west down Arequa Gulch, showing VLF-1 LDS-3 (in foreground) and LDS-7 (circled in background).



**Photo 27.** View looking inside VLF-1 LDS-3, showing < 1 inch of water present in sump. Note visual indicator (red/white tape) placed 1 foot above bottom of sump. Bucket hanging from inlet needs to be removed.



**Photo 28.** View looking inside VLF-1 LDS-7, showing sump dry. No visual indicator was observed in this sump.



Photo 29. View looking west at VLF-1 Phase 2 LVSCS shed.



**Photo 30.** View of displays inside VLF-1 Phase 2 LVSCS shed, which were not functional at the time of the inspection. However, pump #2 was running (indicated by green light).



**Photo 31.** View looking east at VLF-1 Phase 2 pumps. Note VLF-1 Phase 2 HVSCS shed at far right.



**Photo 32.** View of displays inside VLF-1 Phase 2 HVSCS shed, showing readouts for pumps #4, 5, and 6, all below the 80% operating level (49.4 feet).



Photo 33. View looking west at VLF-1 LDS-6.



**Photo 34.** View looking inside VLF-1 LDS-6, showing < 1 inch of water present in sump. No visual indicator was observed in this sump.



**Photo 35.** View looking north at VLF-1 LDS-4 (in foreground), LDS-5 (indicated with yellow arrow), and LDS-8 (indicated with blue arrow).



**Photo 36.** View looking inside VLF-1 LDS-4, showing < 1 inch of water present in sump. No visual indicator was observed in this sump.



**Photo 37.** View looking inside VLF-1 LDS-5, showing approx. 1 inch of water present in sump. No visual indicator was observed in this sump. Bucket hanging from sump inlet needs to be removed.



**Photo 38.** View looking inside VLF-1 LDS-8, showing sump dry. Note visual indicator (red/white tape) marking 1 foot above bottom of sump.



**Photo 39.** View looking north at VLF-1 LDS-10 (background) and LDS-11 (foreground).



**Photo 40.** View looking inside VLF-1 LDS-10, showing sump dry. Note visual indicator (red/white tape; indicated) marking 1 foot from bottom of sump. Bucket hanging from sump inlet needs to be removed.



**Photo 41.** View looking inside VLF-1 LDS-11, showing <1 inch of water present in sump. Note visual indicator (red/white tape) marking 1 foot from bottom of sump. Bucket hanging from sump inlet needs to be removed.



Photo 42. View of VLF-1 Phase 4B underdrain, showing this area dry.



Photo 43. View looking east at VLF-1 Phase 1 HVSCS shed.



Photo 44. View looking east at VLF-1 Phase 1 HVSCS pumps.



**Photo 45.** View of displays inside VLF-1 Phase 1 HVSCS shed, showing readouts for pumps #299-303, all below the 80% operating level (63.75 feet).



Photo 46. View looking north at VLF-1 Phase 5 pumps.



Photo 47. View looking south at VLF-1 Phase 5 LVSCS shed.



**Photo 48.** View of display inside VLF-1 Phase 5 LVSCS shed, showing readout for pump #1 below cap of 24 inches.



**Photo 49.** View of display inside VLF-1 Phase 5 LVSCS shed, showing readout for pump #2 below cap of 24 inches.



Photo 50. View looking north at VLF-1 Phase 5 HVSCS shed.



**Photo 51.** View of displays inside VLF-1 Phase 5 HVSCS shed, showing readouts for pumps #311-314, all below the 80% operating level (36.5 feet).



**Photo 52.** View looking north at area where VLF-1 LDS-14 and LDS-15 are located (behind concrete barrier; indicated).



Photo 53. Close up view of VLF-1 LDS-14 (at left) and LDS-15 (at right).



**Photo 54.** View looking inside VLF-1 LDS-14, showing sump dry. Note visual indicator (red/white tape) marking 1 foot from bottom of sump.



**Photo 55.** View looking inside VLF-1 LDS-15, showing approx. 6 inches of water in sump. Note visual indicator (red/white tape) marking 1 foot from bottom of sump.



Photo 56. View looking south at VLF-1 Phase 4 LVSCS shed.



**Photo 57.** View of display inside VLF-1 Phase 4 LVSCS shed, showing readout for pump #1 (11.0 inches; not fully visible in photo) below cap of 24 inches.



**Photo 58.** View of display inside VLF-1 Phase 4 LVSCS shed, showing readout for pump #2 (12.0 inches; not fully visible in photo) below cap of 24 inches.



Photo 59. View looking south at VLF-1 Phase 4 HVSCS shed (at right).



**Photo 60.** View of displays inside VLF-1 Phase 4 HVSCS shed, showing readouts for pumps #307-309 (at 36.6 feet, 36.3 feet, and 36.9 feet respectively; not fully visible in photo), all below the 80% operating level (56.5 feet).



**Photo 61.** View looking northeast at VLF-1 LDS-12 and LDS-13. These sumps need to be modified to prevent future infiltration of meteoric water and sediment.



**Photo 62.** Closer view of VLF-1 LDS-12, showing top of sump flush with ground surface and hole in sump lid (indicated).



**Photo 63.** View looking inside VLF-1 LDS-12, showing approx. 1 foot of water in sump. No visual indicator could be observed in this sump.



**Photo 64.** Closer view of VLF-1 LDS-13, showing top of sump flush with ground surface and hole in sump lid (indicated).



**Photo 65.** View looking inside VLF-1 LDS-13, showing > 1 foot of muddy water in sump. No visual indicator could be observed in this sump.



**Photo 66.** View looking inside VLF-1 LDS-13, showing stick placed inside muddy water to measure approximate depth.



**Photo 67.** View of stick used to measure approximate depth of muddy water inside VLF-1 LDS-13, showing a depth > 1 foot.



Photo 68. View looking northeast at VLF-2 LDS-1.



**Photo 69.** View looking inside VLF-2 LDS-1, showing sump dry. Note visual indicator (red/white tape) marking 1 foot from bottom of sump.



**Photo 70.** View looking northwest across ADR-2 facility at VLF-2, showing LVSCS shed (indicated with arrow) and HVSCS pumps (indicated with circle).



Photo 71. View looking northeast at VLF-2 LDS-2.



**Photo 72.** View looking inside VLF-2 LDS-2, showing sump dry. Note visual indicator (red/white tape) marking 1 foot above bottom of sump.



**Photo 73.** View looking south at VLF-2 LDS-3 (near center). Structure visible at far right is a historical feature.



**Photo 74.** View looking inside VLF-2 LDS-3, showing sump dry. Note visual indicator (red/white tape) marking 1 foot above bottom of sump.



**Photo 75.** View looking east/northeast from location of VLF-2 LDS-3, showing High Grade Mill in background.



**Photo 76.** View looking west at VLF-2 underdrain, located at toe of Hwy 67 and VLF-2 embankment.



**Photo 77.** Closer view of VLF-2 underdrain, showing lined basins holding some meteoric water.



Photo 78. View looking southwest across VLF-2 from eastern overlook.



**Photo 79.** View looking west across VLF-2 Phase 3 (Schist Island backfill area; indicated) from eastern overlook.



**Photo 80.** View looking northwest across Schist Island mine area from eastern overlook.



**Photo 81.** View looking southwest, showing closer view of VLF-2. Note temporary stockpiling/processing area (circled) at which material is processed for VLF-2 Phase 3 construction.



**Photo 82.** View looking west, showing closer view of VLF-2 Phase 3 (Schist Island backfill area). Note liner installation has begun in this area (circled).



**Photo 83.** View looking northwest, showing closer view of Schist Island mine area where mining activities continue.

### **GENERAL INSPECTION TOPICS**

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS <u>Y</u> (FN) FINANCIAL	WARRANTY <u>N</u> (RD) ROADS <u>Y</u>
(HB) HYDROLOGIC BALANCE <u>N</u> (BG) BACKFILL &	& GRADING <u>N</u> (EX) EXPLOSIVES <u>N</u>
(PW) PROCESSING WASTE/TAILING <u>N</u> (SF) PROCESSING	G FACILITIES <u>Y</u> (TS) TOPSOIL <u>N</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>PBs</u> (FW) FISH & WIL	DLIFE <u>N</u> (RV) REVEGETATION <u>N</u>
(SM) SIGNS AND MARKERS <u>N</u> (SP) STORM WAT	TER MGT PLAN <u>N</u> (RS) RECL PLAN/COMP <u>N</u>
(ES) OVERBURDEN/DEV. WASTE <u>N</u> (SC) EROSION/SE	DIMENTATION <u>N</u> (ST) STIPULATIONS <u>N</u>
(AT) ACID OR TOXIC MATERIALS $\underline{Y}$ (OD) OFF-SITE D.	_

Y = Inspected / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

#### **Inspection Contact Address**

Johnna Gonzalez Cripple Creek & Victor Gold Mining Company P. O. Box 191 Victor, CO 80860

- Encls: VLF 1 Underdrain, LDS, LVSCS & HVSCS Monitoring Locations, submitted with AM-13 VLF 2 – Underdrain, LDS, LVSCS, & HVSCS Monitoring Locations, submitted with AM-13 Attachment A – VLF Water Level Inspection Readings
- CC: Katie Blake, CC&V Alyson Boye, CC&V Michael Cunningham, DRMS





CC&V VLF Water Level Inspection Readings			Previous Results						
Date:			1/27/22	3/2/22	3/30/22	4/19/22	5/26/22	7/26/22	Notes
<u>LF1:</u>		EPS:	ERR	BFB	JPL	TC1		AME	
nase I HVSC &	Pond Piezometers	TIME:	13:09	13:10	9:45	12:37	1	12:18	1
	Max. of Pump #299, #300, #301, 302, or #303	(f+)	49.3	44.5	56.7	45.5		52.3	
<u>Note: 80% cap.</u> @ 63.75 ft	Pond Lvl / XDCR #1	(ft)	49.3	44.5	57.2	45.5 52.1		52.5	
<u>@ 05.7511</u>	System Press / XDCR #2	(ft) (ft)	47.9 n/a	43.9 n/a	n/a	n/a		52.1 n/a	
	lume Solution Collection	TIME:	13:09	13:10	9:45	12:37		17a 12:18	
	Piezo #1 (HAND)	(ft)	0.47	0.73	0.64	0.54		None	Display not working
Note: Req'd < 2 ft	Piezo #2 (AUTO)	(ft)	0.66		0.79	0.72		None	Display not working
	/SC & Pond Piezometer	. ,	13:10	13:10	9:45	12:37		12:18	
	Max. of XDCR #4, #5, or #6	TIME: (ft)	22.0	29.6	28.6	34.3		25.9	
lote: 80% @ 49.4 ft	Piezo (Pipe)	(ft)	31.6		31	34.3		32.9	
ase II & III I o	w Volume Solution Collection	TIME:	13:10	13:10	9:45	12:37		12:18	
	Pump / XDCR #1 (AUTO)	(ft)	3.68"	3.65	3.67	3.64		None	Display not working
Note: Req'd < 2 ft	Pump / XDCR #2 (AUTO)	(ft)	3.68"		3.71	3.69		None	Display not working
	/olume Solution Collection	. ,					I	12:18	
ase iv nigil V	Max. of Pump #307, #308, or	TIME:	13:11	13:10	9:45	12:37		12.10	
<u>ote: 80% cap.</u>	#309	(ft)	35.8	44.9	38.1	33.0		36.8	
<u>@ 56.5 ft</u>	XDCR pipe (#310 Resv'd)	(ft)	38.2		38.4	37.7		38	
ase IV Low V	olume Solution Collection	TIME:	13:11	13:10	9:45	12:37	ı	12:18	L
Note: Req'd	Pump / XDCR #1	(in)	10.9	10.8	13.1	10.8		15.3	
< 24"	Pump / XDCR #2	(in)	11.8	10.7	11.4	11.1		10.9	
ase V High V	olume Solution Collection	TIME:	13:11	13:10	9:45	. 12:37	•	12:18	•
ote: 80% cap.	Max. of XDCR #311, #312, #313,								
<u>@ 36.5 ft</u>	or #314 (Circle XDCR #)	(ft)	27.0	28.8	28.8	29.5		27.1	
nase V Low Vo	olume Solution Collection	TIME:	13:12	13:10	9:45	1			1
Note: Reg'd	XDCR #001	(in)	11.7	11.7	11.8	12.0		12.9	
< 24"	XDCR #002	(in)	n/a	n/a	n/a	n/a		n/a	
ternal Pond L	ow Volume Solution Collection	TIME:			9:45	12:37		12:18	
Note: Deald	Pump / XDCR #1-EXT (AUTO)	(in)			15.2	?		None	Display not working
Note: Req'd < 24"	Pump / XDCR #2-EXT (AUTO)	(in)			17.1	?		None	Display not working
nderdrain Dis	charge Area	TIME:			•			10:30	
	South Underdrain (S U/D)	(gpm)						No flow	
	4" Pipe Discharge AG 01 Spring Pipe	(gpm)							
lote: 1 {/sec =	NPDES Discharge AG 1.5 -001A	(gpm)							1
15.85 gpm	North Underdrain (N U/D)	(gpm)						No flow	
	24-inch Solid Pipe	(gpm)							
equa Gulch N	Aonitor Well Pumpback System	TIME:		•			<b>I</b>	10:40	1
	3B-63	(ft)						23.7	
<u>Data first</u>	3C-124	(ft)						34.3	
<u>collected by</u> DRMS 3/8/12	3B-63	(gpm)							
<u>21/8/12 כועואש</u>	3C-124	(gpm)							
				I	I		ł		1
<u>VLF2 High Vol. S</u> <u>Note: 80% cap.</u> <u>@ 94 ft</u>		TIME:	13:13		9:45	12:37	1	12:18	
	LIT #88301 (north end) LIT #88303	(ft) (ft)	58.9 55.0		58.6 57.7	41.8		56.8 56.0	
	LIT #88303	(IL) (ft)	55.0		57.7	40.8		56.0	
	LIT #88307 (south end)	(ft)	60.7		59.1	42.4		57.1	
		(ft)	68.8		71	56.0		67	
	Plezometer-III #XXXIA								1
F2 Low Vol S	Piezometer-LIT #88314	_						12.18	
LF2 Low Vol. S		TIME: (in)	13:13 12.2		9:45	12:37 13.1		12:18 9.5	